

# Intermediating organisations in regional innovation systems:high- technology enterprise survey from Northern Finland

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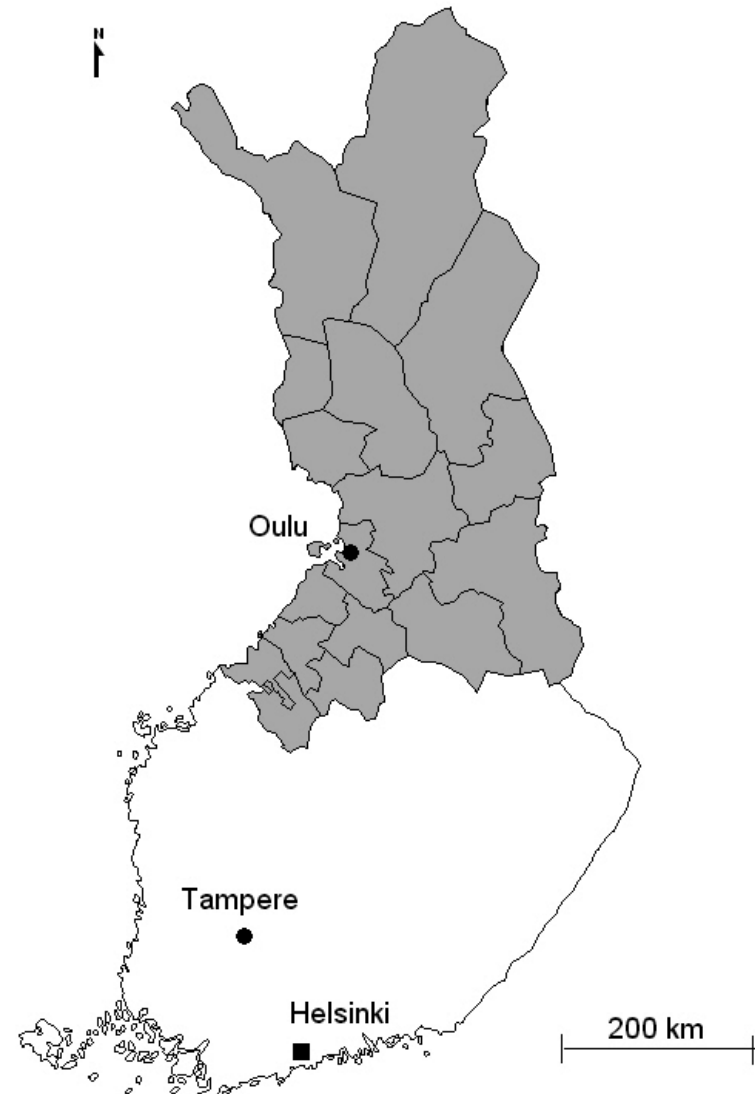
# PhD Theses: Innovation systems and innovation policy in the periphery: the case of Northern Finland

1. Suorsa, K. (2007). Regionality, innovation policy and peripheral regions in Finland, Sweden and Norway. Fennia 185:1, pp.15-29.
2. Jauhiainen, J.S. & Suorsa, K. (2008). Triple Helix in the periphery: the case of Multipolis in Northern Finland. Cambridge Journal of Regions, Economy and Society. Forthcoming
3. Suorsa, K. & Inkinen, T. Intermediating organisations in regional innovation systems. High-technology enterprise survey from Northern Finland
4. Suorsa, K. Regions in regional innovation systems: aspects in theories, governance and enterprises' behaviour

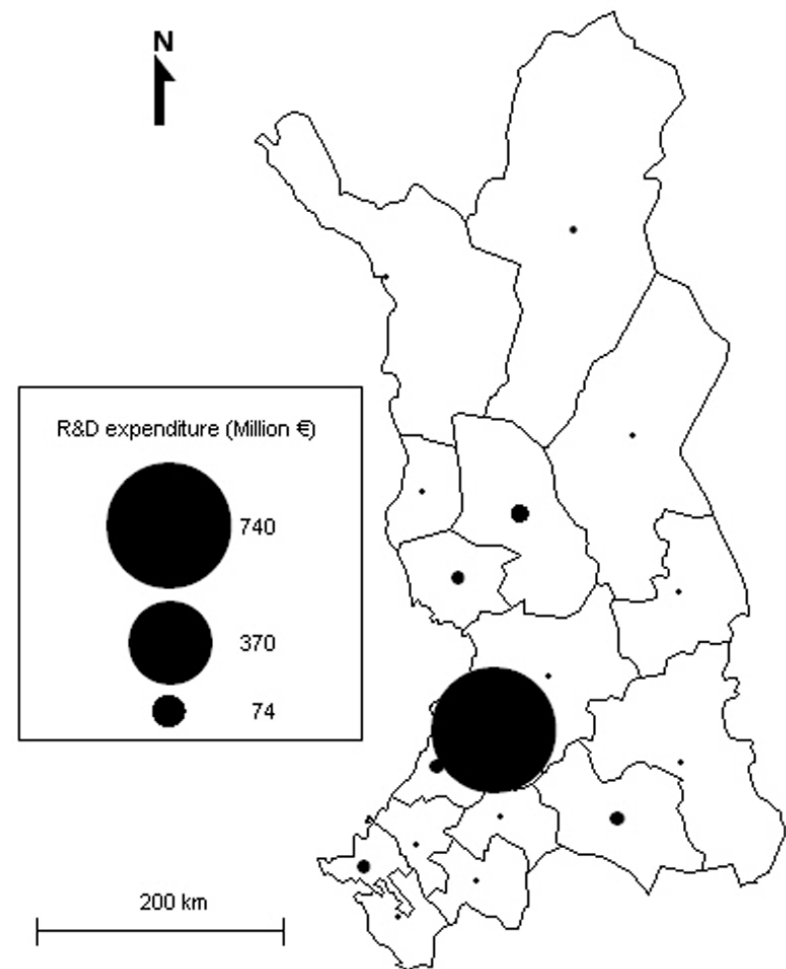
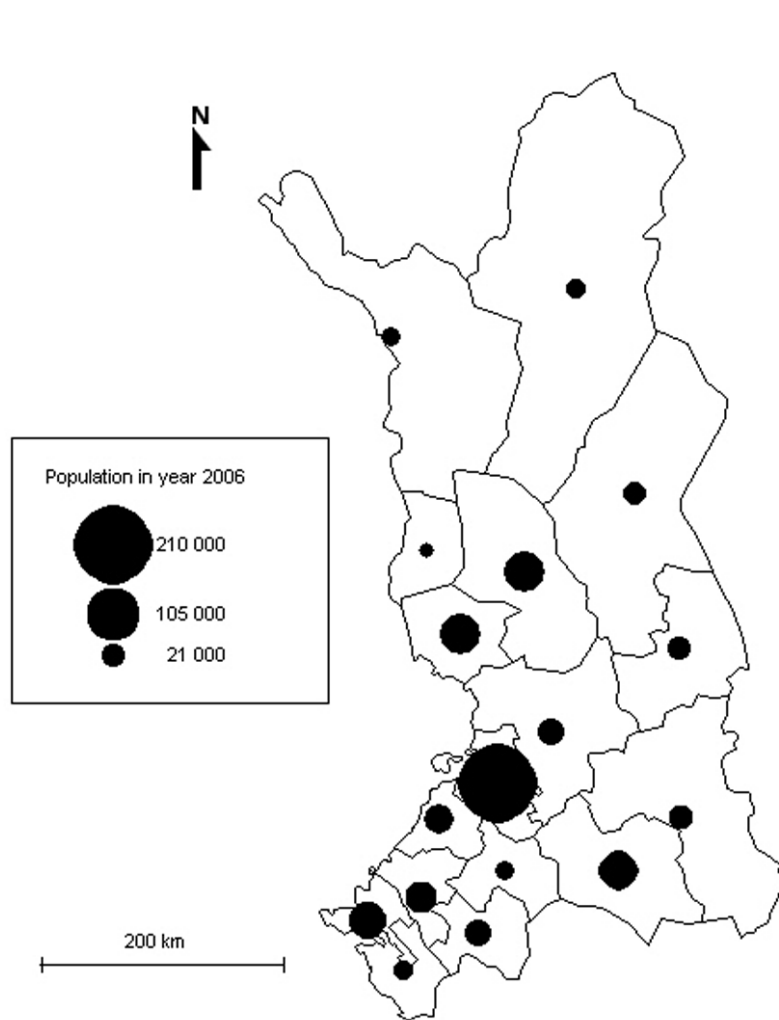


# Context: Northern Finland

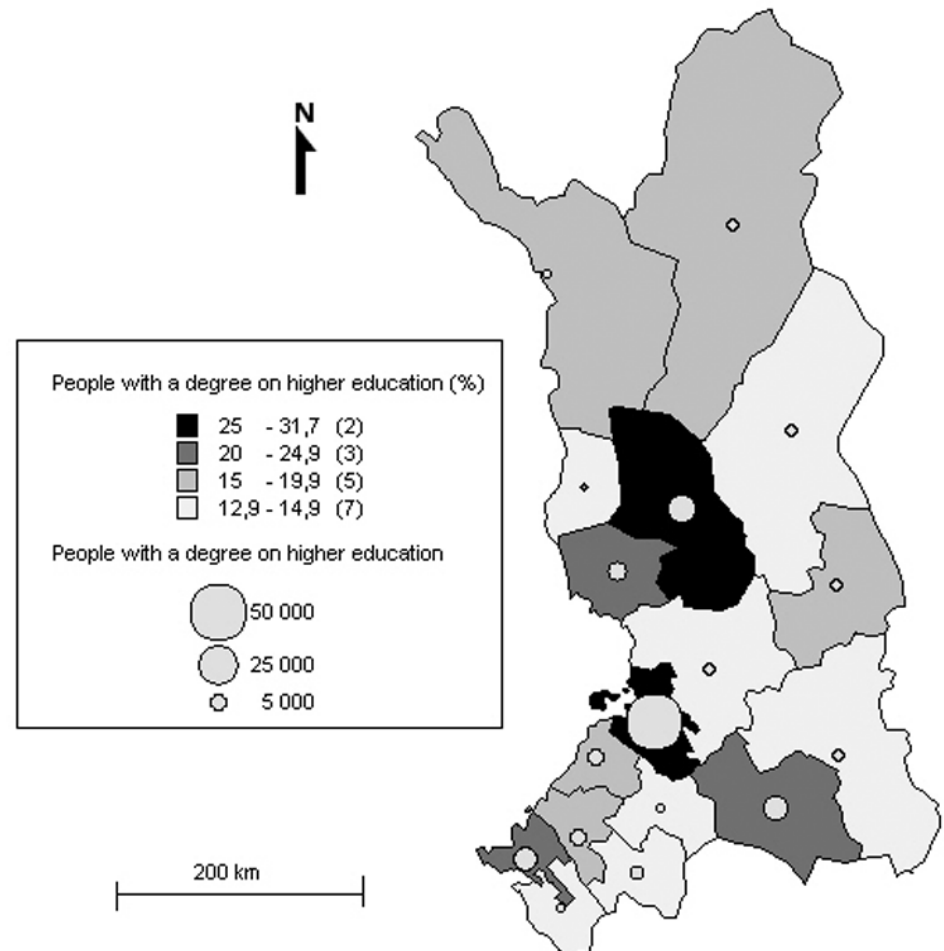
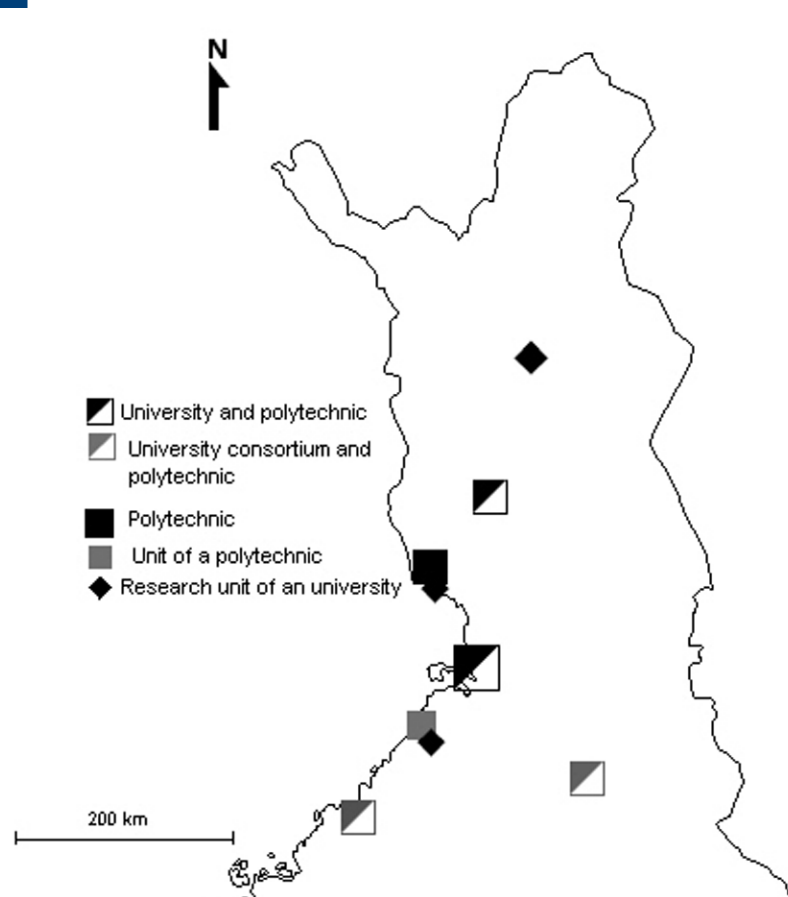
- National innovation policy and system!
- Territory: 156,000 km<sup>2</sup>; 0.7 million inhabitants – population density 4.7 inhabitants / km<sup>2</sup>
- Largest cities:
  - Oulu (131,600)
  - Rovaniemi (58,800)
  - Kajaani (38,100)
  - Kokkola (37,000)



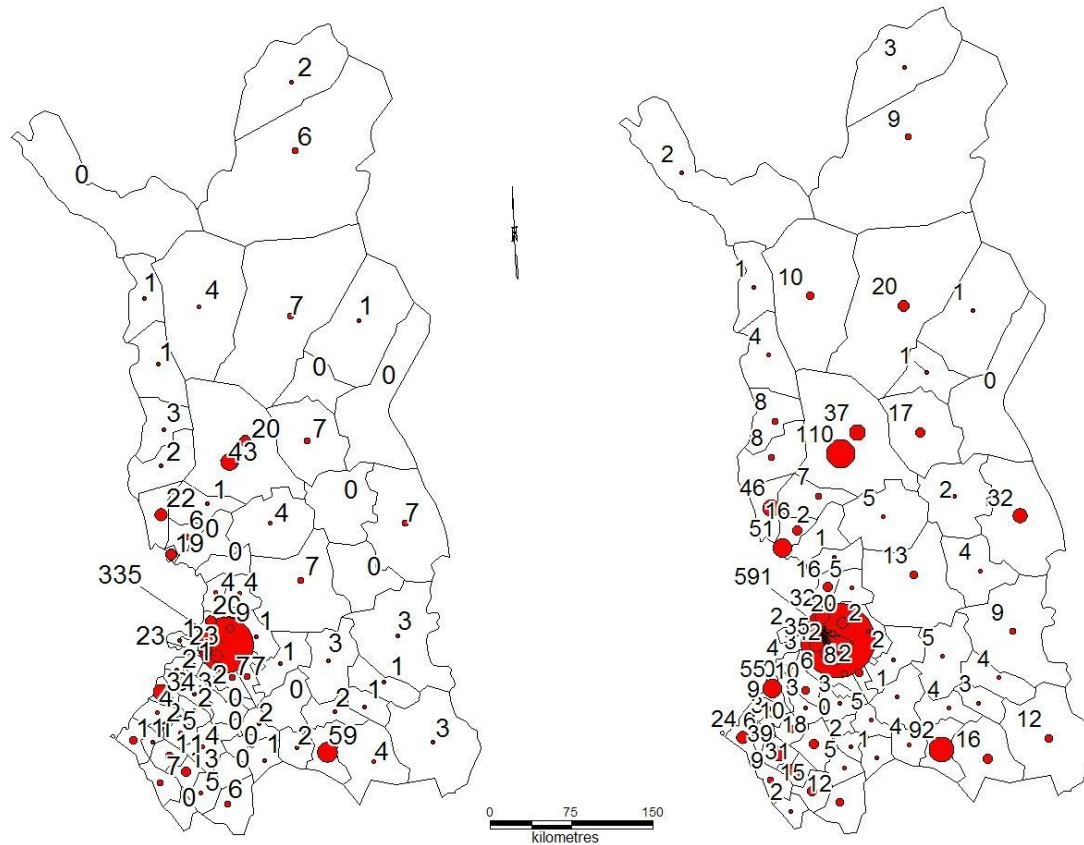
# Population and R&D investments



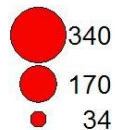
# Higher education



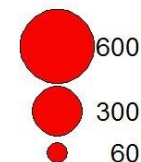
# High-tech enterprises




Amount of the high technology firms  
in 2003 (by Oulutech Ltd)



Amount of the high technology firms  
in 2003 (Statistics Finland)





# The aim of the study and research questions

- The aim of the study is to discuss how firms in a peripheral region experience they benefit from intermediating organisations
- Research questions
  - What type of intermediating organisations are the most important to studied high-technology enterprises?
  - What kind of high-technology enterprises benefit most from intermediating organisations?
  - What public sector measures do the studied high-technology enterprises appreciate most?





# Research material and methods

- Background material: statistics, policy documents, annual reports and internet pages from intermediating organisations
- Survey of high-tech firms in Northern Finland
  - Conducted by phone or in internet (February to April 2008)
  - total population: 451 firms with product development; our data 168 firms (response rate 37.3 %)
- Methods: gross tabulation, Khii square test, Pearson correlation, Mann-Whitney and Kruskal-Wallis tests; categorization in an open question







# Main concepts

- National and regional innovation systems
  - organisations, firms and their cooperation
- National and regional innovation policies
  - "governance of innovation systems"
- Intermediating organisations
  - Operate between knowledge producers and knowledge users
  - Tasks: technology transfer and commercializing of technology
  - Challenges: lack of knowledge of markets, unfair conditions to competition, efficiency of direct support (see Ebesberger 2005)





# Intermediating organisations in Northern Finland

- National: Tekes, Finnvera, Foundations for Finnish Inventions, Finpro
  - Regional: Regional Councils, TE-centres, Regional development companies, Centres of Expertise, Regional Centres
  - Local: Technology centres, business incubators, employment agencies, trade promoters
- + VTT Technical Research Centre and higher education institutions (2 universities, 2 university consortiums, 5 universities of applied sciences)



# The firms in survey

- Sample size: 168 firms, all of them have product development activities
  - Amount of cooperation partners low
- Background
  - Size: most very small
    - 71.1 % had less than 10 employees
    - Revenue less than 200,000 in 34.6 % of firms
  - Age: most young companies
    - 65.4 % established in 2000's, 33.9 % after 2004
  - Principal business activity
    - Software houses (43.5 %)
    - Architectural and engineering activities (22.6 %)
  - Location: most in FUR Oulu



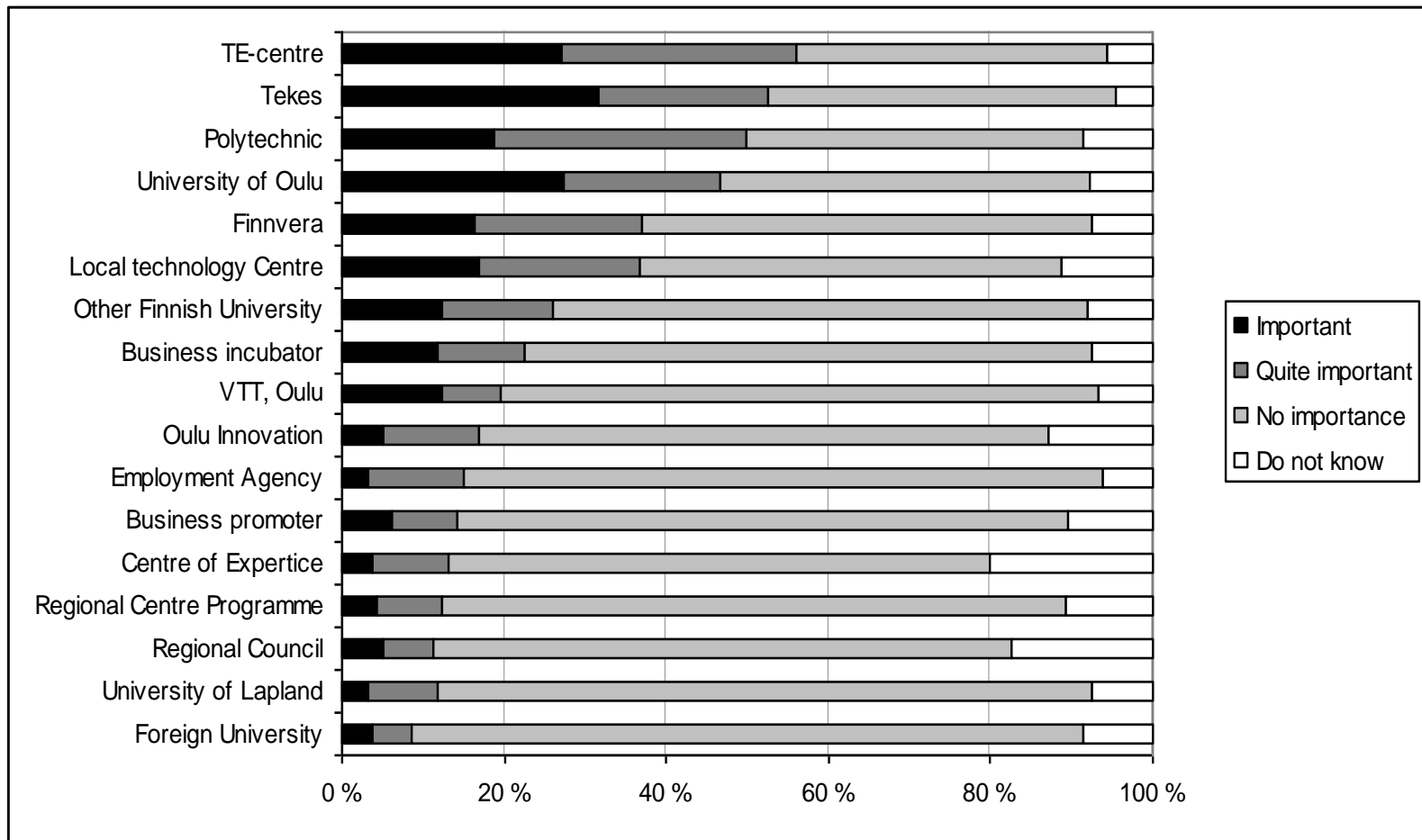


# ”Activity” of firms in the survey

- Aim to significant growth in turnover: 75.6% of firms
- Aim to international cooperation: 60.4 % of firms
- Product innovation in 2004-2007: 75.0 % of firms
- R&D investments
  - Quite low: 48.9 per cent invested less than 50,000 € annually to R&D
- 52 (31.0 %) of firms received Tekes funding in year 2006 and/or 2007



# Results: importance of intermediating organisations





## Results: the most important task of the most important organisation

Task	Number of answers	Percent
Funding	80	61.1
Services (i.e. advice in money applications)	14	10.7
Projects, networking	12	9.1
Other	11	8.4
Knowledge, cooperation in R&D	7	5.3
Infrastructure	4	3.1
Education	3	2.3
<b>Total</b>	<b>131</b>	<b>100</b>





# Results: Firms that benefit the most

= Firms that appreciate most the intermediating organisations

- firms that benefit the most:
  - "active" firms
  - small but not the smallest
  - Firms that had received Tekes funding
- Groups in intermediating organisations:
  - Tekes, TE-centres, VTT, university of Oulu (the most active firms)
  - Regional intermediating organisations
- 52 (31.0 %) could not name any intermediating organisation important or did not answer the question





# Results: Recommendations to public sector

- Increase or improve funding
- Increase or improve other support (e.g. infrastructure, networking)
- Increase or improve networking and cooperation between public and private sector
- Increase or improve education
- Use more private and local companies
- Decrease bureaucratic obstacles







# Conclusions

- Firms that are the "target" group of innovation policy measures appreciate most the intermediating organisations
- Firms did not see most of the intermediating organisations important to their product development
  - Most important ones were those that offered direct support or were in direct contact to firms
  - TE-centres and Tekes was the most important ones, however, over 40 % of firms did not consider them important
- 52 firms could not name the most important intermediating organisations and 8 firms felt that public could not help or should not interfere in business activities





# Conclusions

- Funding was considered the most important task of the most important intermediating organisation
- However, there were criticism against funding
  - Criteria?
  - Funding decisions?
  - Funding to marketing
  - Problems in getting funding when a firm is too small (1-4 employees)





# Recommendations

- Besides funding, there is a need to develop other support measures
- Public sector should communicate more with private sector when developing support measures
- Intermediating organisations should inform more about themselves and their tasks to private sector
- When considering peripheral regions, also other than "active" firms should be included in innovation or other support measures





Thank you for your attention!

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